

# Building Great Newsstand Apps

Session 307

**Ben Nielsen**

iOS Application Engineering

These are confidential sessions—please refrain from streaming, blogging, or taking pictures

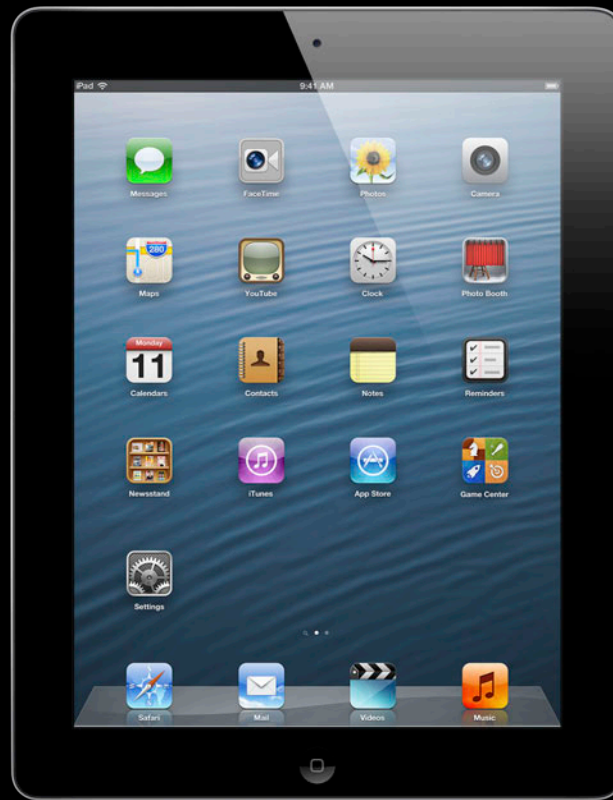
# What You'll Learn

- Elements of great Newsstand Apps
- Distribution through iTunes Connect
- NewsstandKit Best Practices

# Elements of Great Newsstand Apps

**Karl Good**

Worldwide Developer Relations



Package high resolution assets to support Retina display



Download new issues in the background



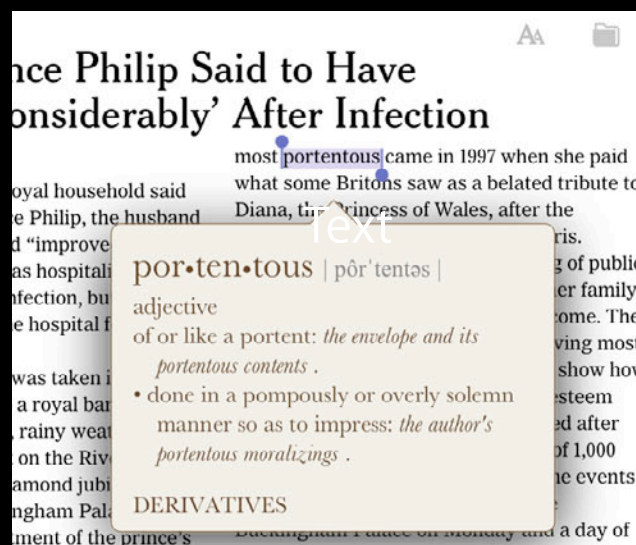
Subscribe now and get  
up to 3 months free  
Plus get access to the Vogue Archive



Offer a free trial period to subscribers

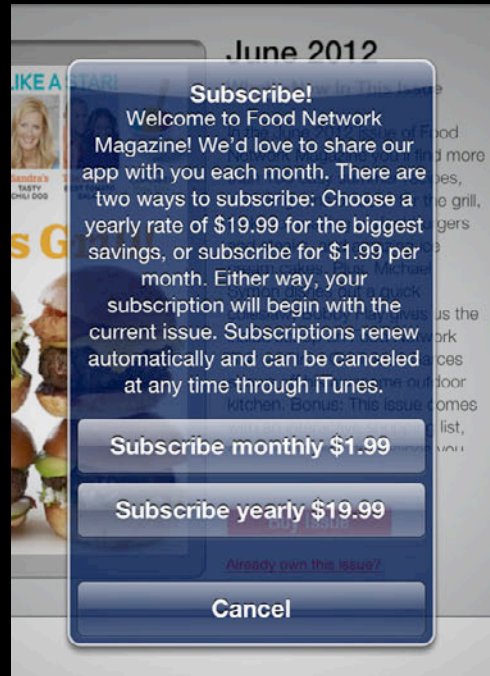


Support both Portrait and Landscape orientation



Are accessible and make the most of iOS technologies and system services





Offer clear subscription terms

1 Month \$2.99

2 Month \$4.99

3 Month \$6.99

6 Month \$12.99

12 Month \$19.99

Simple and reasonably-priced subscription options

1 Month \$2.99

12 Month \$19.99

Simple and reasonably-priced subscription options

Not bloated



Not bloated



Not bloated



Telegraph a sense of "Place" in publication



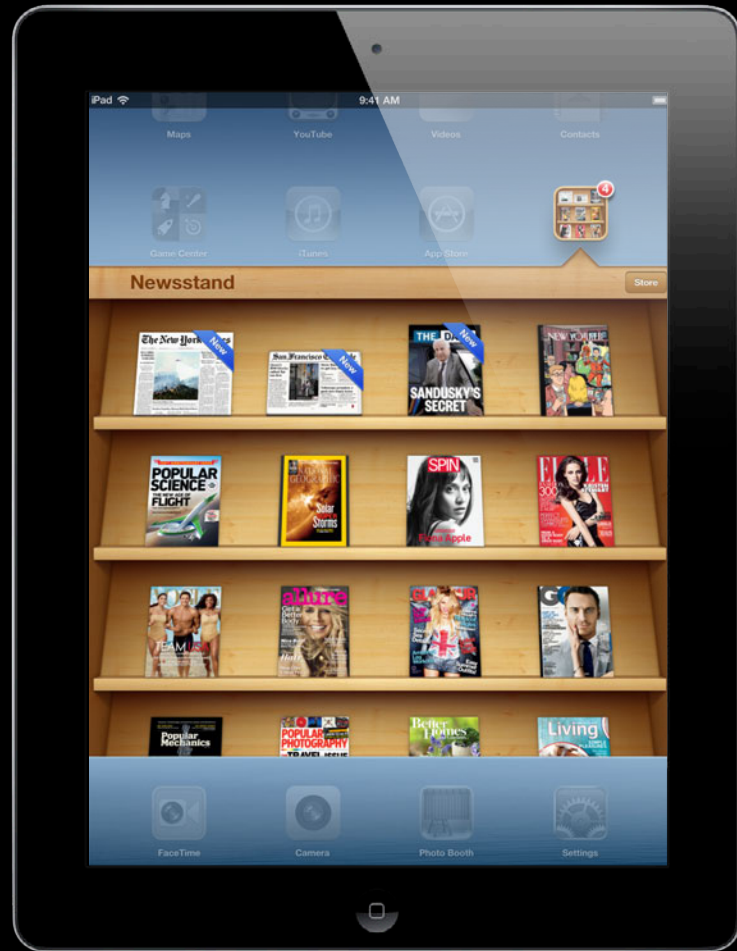
Give users the ability to clip or bookmark content



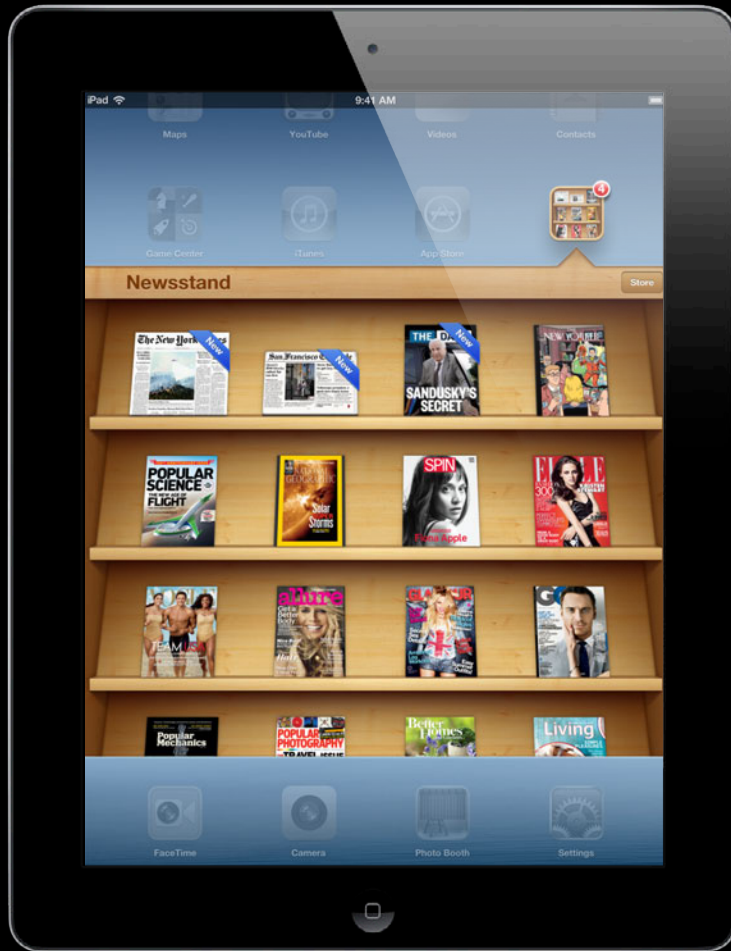
# Distribution Through iTunes Connect

**Aubrey Ness**

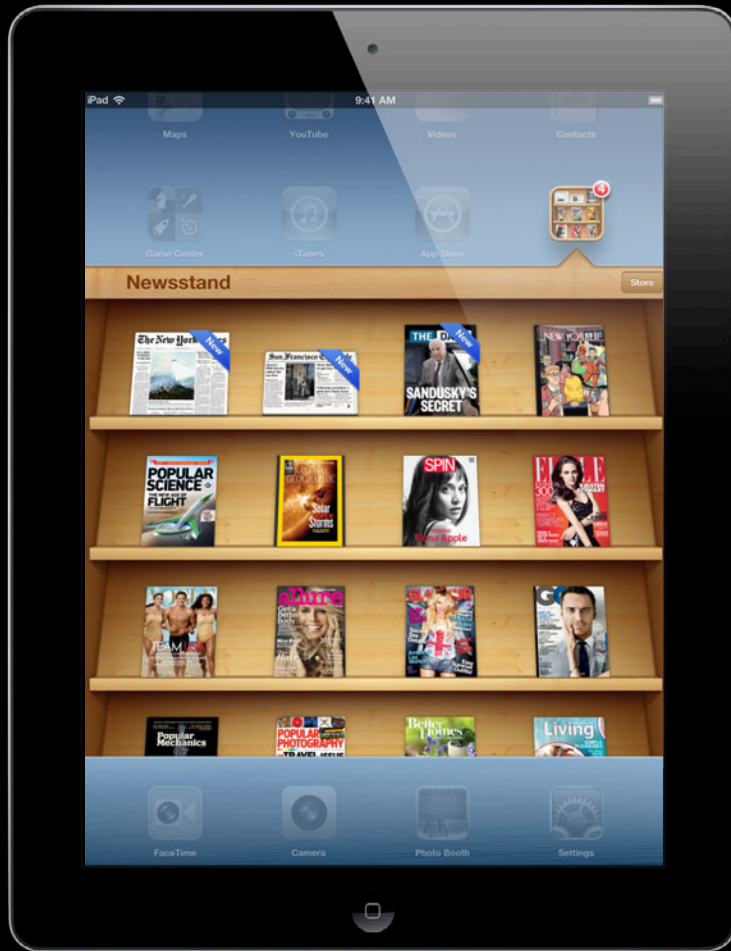
App Store Operations Manager





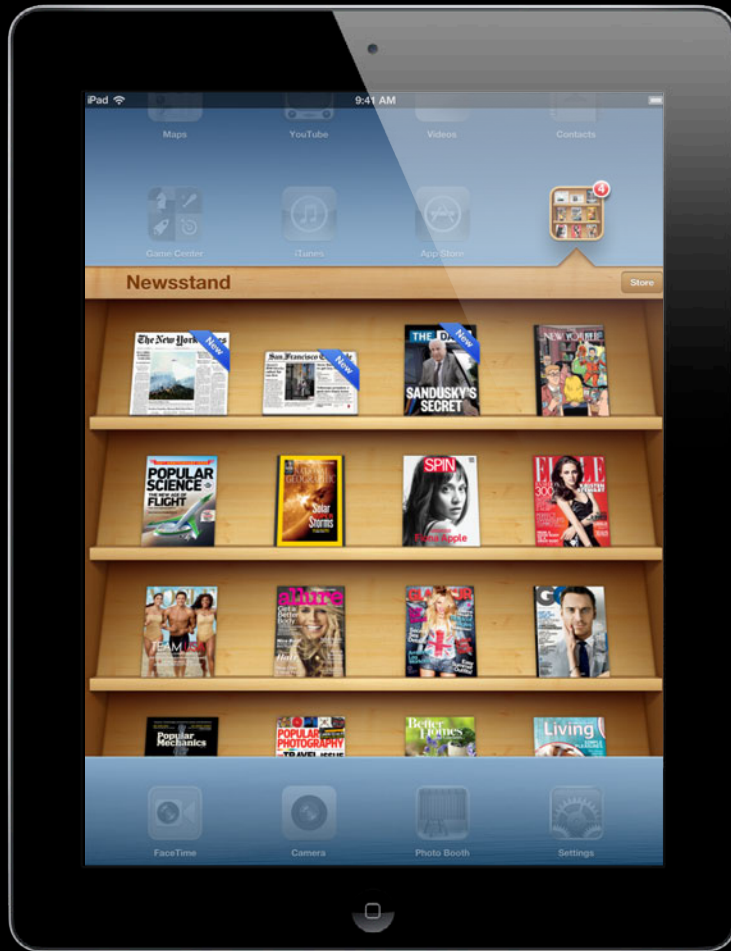


Setup



Setup

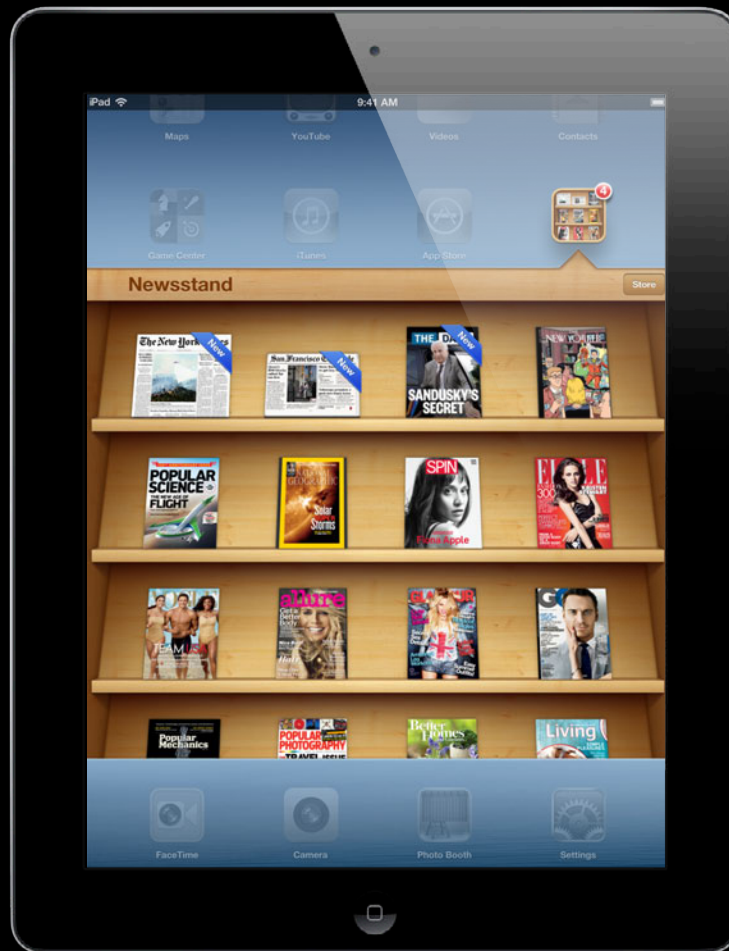
Automation



Setup

Automation

Submission



Setup

Automation

Submission

App Store Impact

Setup



**What Is a Family?**

# Families

Stay organized

# Families

Stay organized

Your App

# Families

Stay organized

Your App



# Families

Stay organized

Your App



Subscription  
Family



# Families

Stay organized

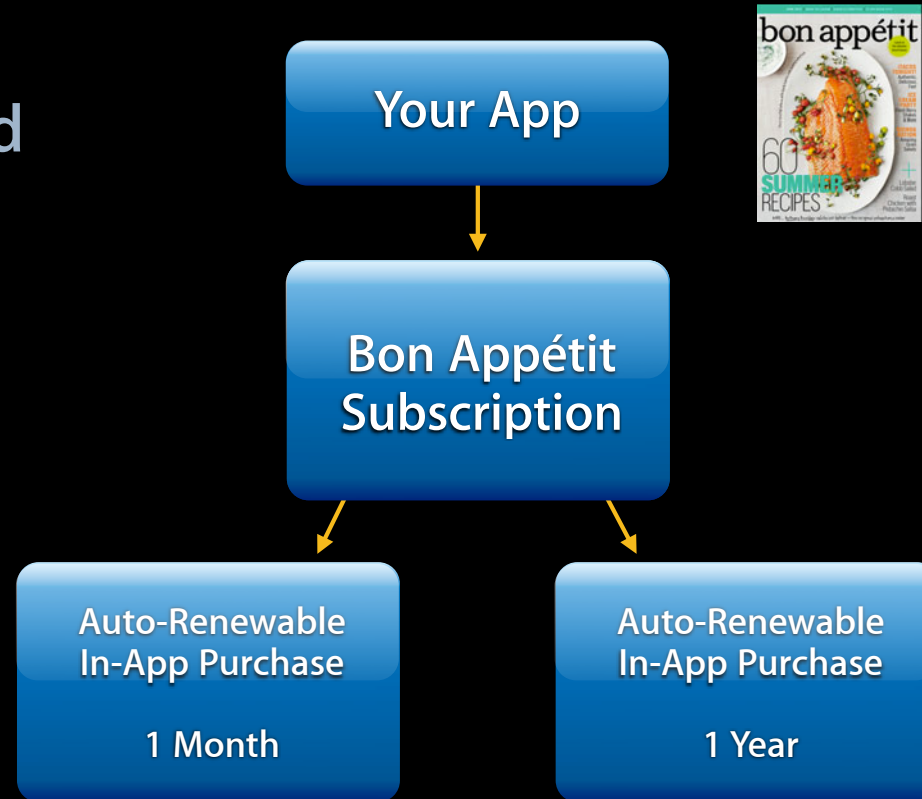
Your App

Bon Appétit  
Subscription



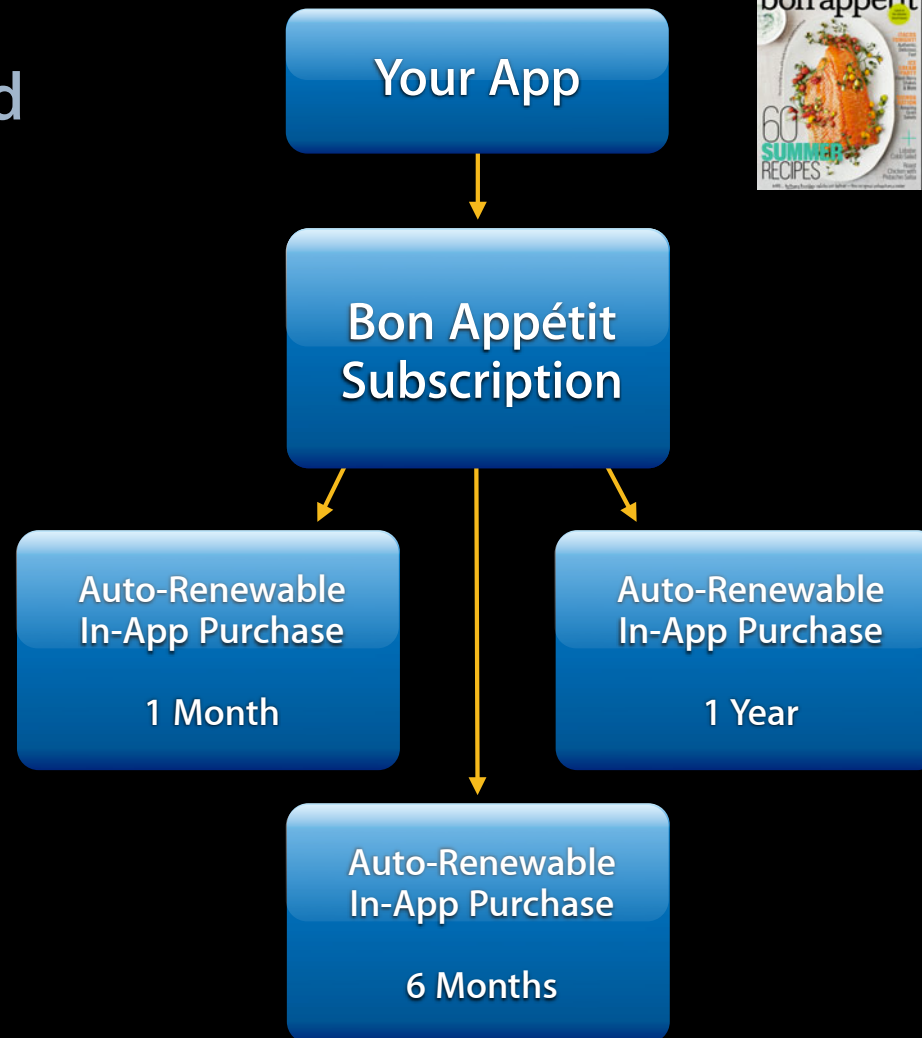
# Families

Stay organized

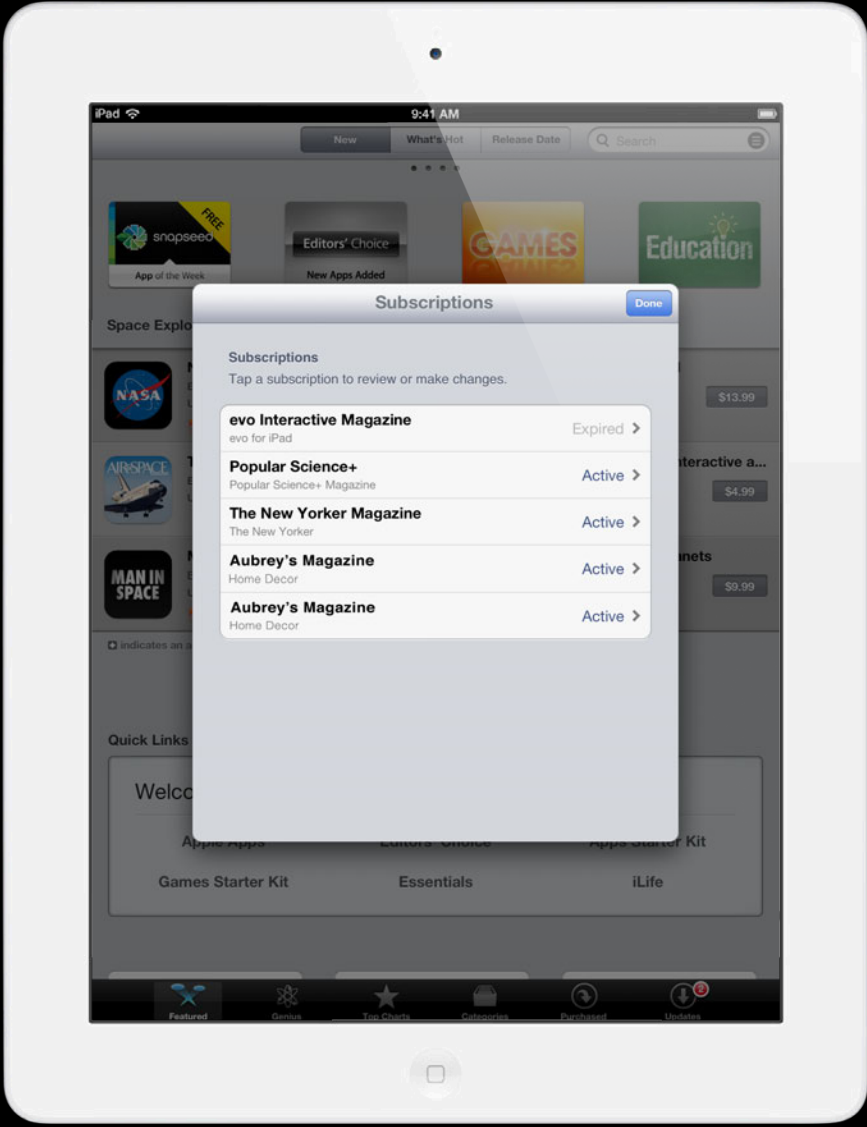


# Families

Stay organized







Subscriptions

Subscriptions  
Tap a subscription to review or make changes.

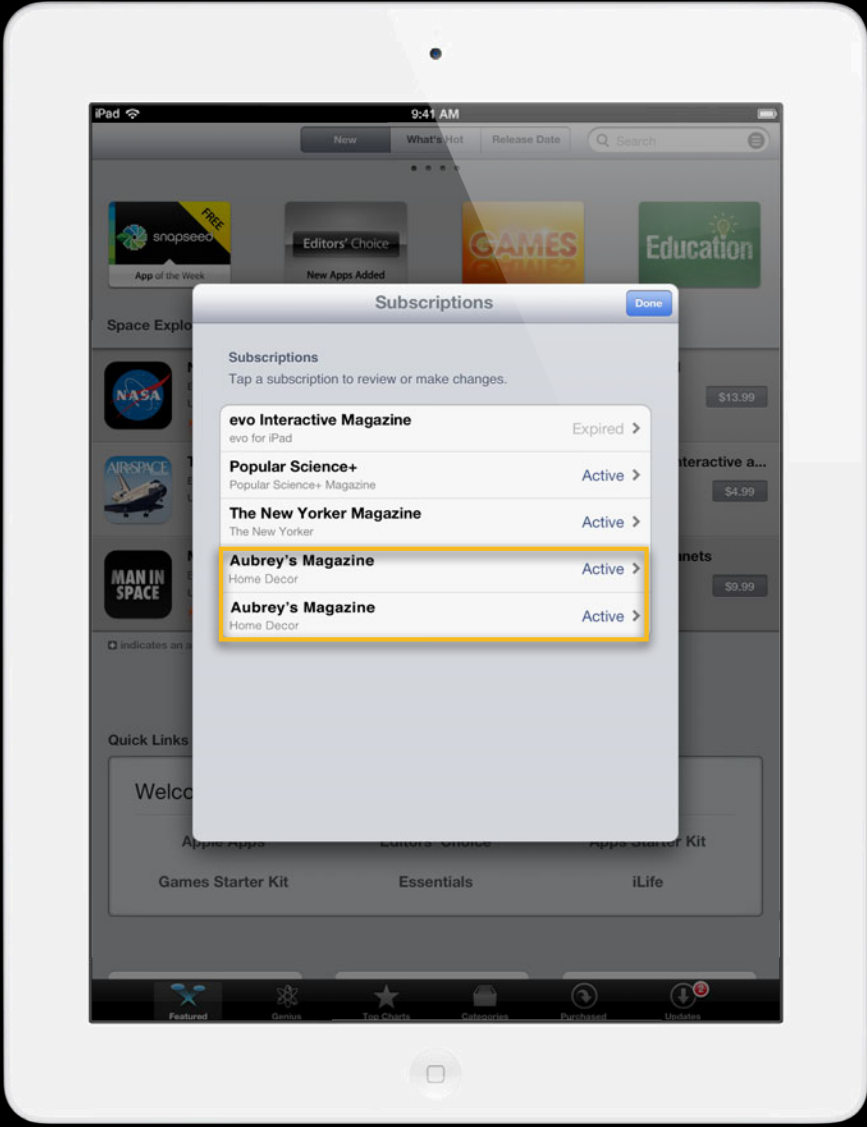
<b>evo Interactive Magazine</b> evo for iPad	Expired >	\$13.99
<b>Popular Science+</b> Popular Science+ Magazine	Active >	\$4.99
<b>The New Yorker Magazine</b> The New Yorker	Active >	
<b>Aubrey's Magazine</b> Home Decor	Active >	\$9.99
<b>Aubrey's Magazine</b> Home Decor	Active >	

Quick Links

Welcome

Games Starter Kit    Essentials    iLife

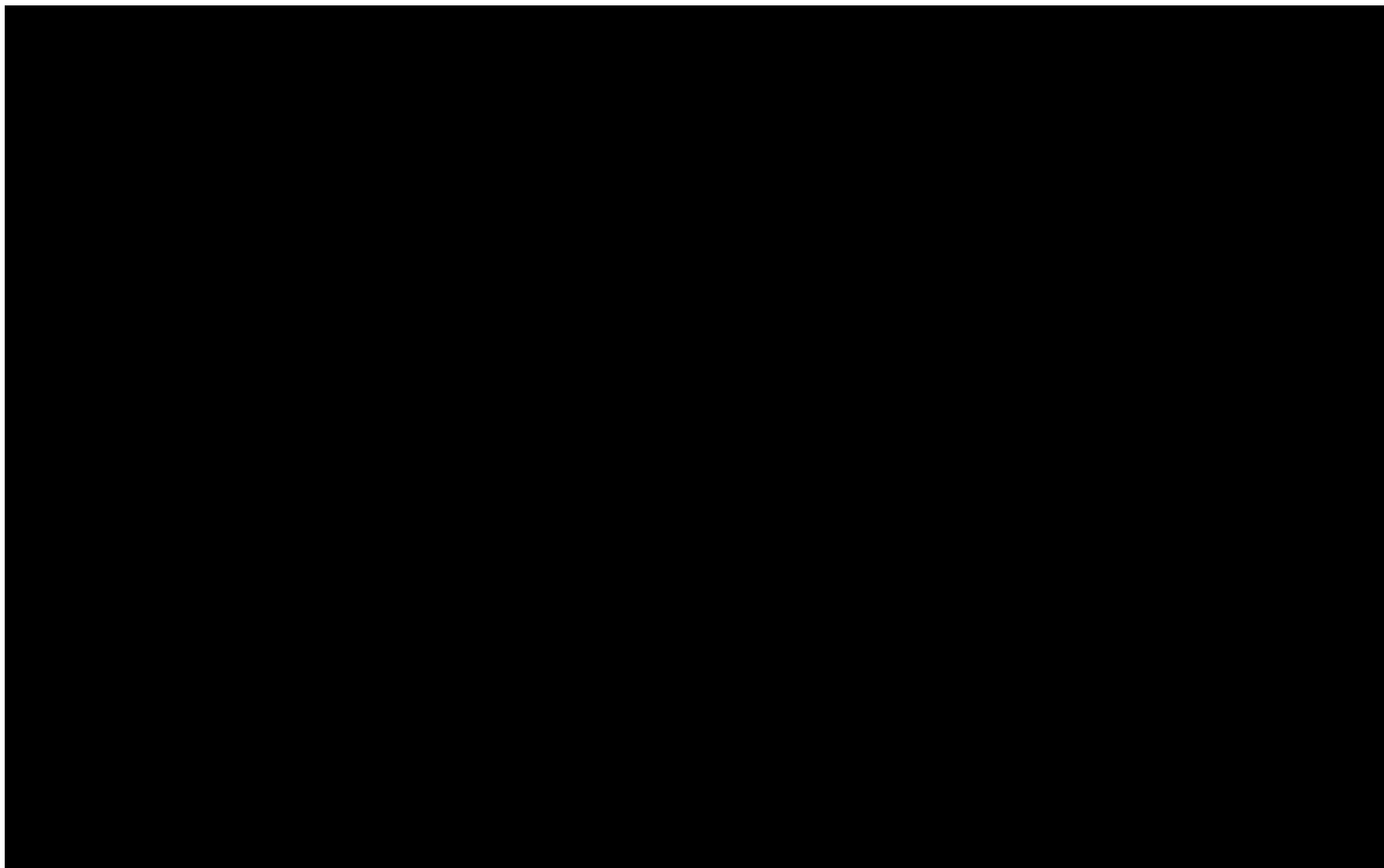
Featured    Genius    Top Charts    Categories    Purchased    Updates



Subscriptions

Subscriptions  
Tap a subscription to review or make changes.

<b>evo Interactive Magazine</b> evo for iPad	Expired >
<b>Popular Science+</b> Popular Science+ Magazine	Active >
<b>The New Yorker Magazine</b> The New Yorker	Active >
<b>Aubrey's Magazine</b> Home Decor	Active >
<b>Aubrey's Magazine</b> Home Decor	Active >



**Manage In-App Purchases**

Create New Family

### Bon Appetit — In-App Purchases

To add an auto-renewable subscription duration to an existing family, select a family from the table below. Note that each duration can only be used once per family. To begin a new family of subscriptions, click Create New Family.

Reference Name	Duration	
BA Subscription	1 Month 1 Year	Choose

Cancel

## Bon Appetit — In-App Purchases

### In-App Purchase Summary [Edit](#)

Reference Name: **BA Subscription**

Type: **Auto-Renewable Subscription**

### Subscription Durations and Pricing

The subscription duration details for this family, including the current price tier(s), are shown below. To view other pricing details, such as the complete price tier schedule, click on a duration in the table. When adding a new duration, note that it can only be used once per family.

[Add Duration](#)

Duration	Product ID	Price Tier	Status	
1 Month	com.condenet.bonappetit.sub.1mo	Tier 2	Ⓢ Approved	<a href="#">Delete</a>
1 Year	com.condenet.bonappetit.sub.1year	Tier 20	Ⓢ Approved	<a href="#">Delete</a>

### Add Duration and Pricing

Duration  ⓘ

Product ID  ⓘ

Offer a marketing opt-in incentive?  Yes  No ⓘ

Offer a free trial?  Yes  No ⓘ

Cleared for Sale  Yes  No

Price Tier  ⓘ

[View Pricing Matrix](#)

#### Price Tier 10

App Store	Customer Price	Your Proceeds
U.S.*	US\$9.99	US\$7.00
Mexico	\$120.00	\$84.00
Canada	CA\$9.99	CA\$7.00
U.K.	£6.99	£4.25
European Union*	7.99 €	4.86 €
Sweden	75,00kr	49,85kr
Denmark	59,00kr	35,91kr
Norway	70,00kr	39,20kr
Switzerland	10.00Fr	6.48Fr
Australia	AUS10.49	AUS6.68
New Zealand	NZ\$13.99	NZ\$9.79
Japan	¥9850	¥9595
China	CNY68.00	CNY47.60

\*The U.S. price applies to all countries where apps are sold in U.S. dollars. The European Union price applies to all countries where apps are sold in euros. [See Details](#).

Cancel

Save

# Configuring Issues

The spirit of Newsstand





Metadata and Uploads **EDIT**

English (Default Language)

Choose Another Language: English (Default) ▼

You can only add new languages if your app version is in an editable state. To add new languages, you must submit a new app version from the App Summary module or reject this version.

App Name: Vogue

Description: Every image, every word—download this month's issue of Vogue for the iPad for digital access to the premiere fashion experience.

Long synonymous with sophistication and glamour, Vogue is unparalleled in its influence on fashion, but its reach extends well beyond matters of style to the worlds of art, photography, politics, celebrity, food, and health. With a passion for exploring our culture in new and revelatory ways, and with an instinct for material that is vibrant, serious, and fun, Vogue offers a unique perspective on the ideas, talents, and personalities shaping our society. The magazine's editorial aim is consistent: to bring the world, in all its complexity, into sharper view with penetrating reporting and unforgettable imagery.

Subscribe now to start your free trial and get complete issues of Vogue (U.S. edition), plus app exclusives. Already a print subscriber? iPad access is included in your subscription; download the app and begin your subscription activation. Subscriptions are auto-renewable (see more details below). Single issues are also available for purchase. Sign up for a year subscription and enjoy a three month free trial!

Vogue Magazine Subscriptions available:  
A single issue for \$3.99 (non-subscription)  
1-month subscription for \$1.99, automatically renewed until canceled, subscription starts after a one month free trial  
1-year subscription for \$19.99, automatically renewed until canceled, subscription starts after a three month free trial  
Payment for all purchases will be charged to your iTunes account at the confirmation of your purchase.

**SUBSCRIBERS' AUTOMATIC RENEWAL FEATURE:** Your subscription automatically renews unless auto-renew is turned off at least 24-hours before the end of the current period. Your iTunes account will automatically be charged at the same price for renewal within 24-hours prior to the end of the current period (another year for annual subscribers, another month for monthly subscribers) unless you change your subscription preferences in your account settings. You can manage your subscriptions through your Account Settings after purchase. No cancellation of the current subscription is allowed during active subscription period. Free trials are only available upon initial subscription. Please go to [www.vogue.com/go/ipads](http://www.vogue.com/go/ipads) for more information.

What's New in this Version: - Full issues of Vogue now available for the iPad.  
- Auto-Renewing Subscriptions  
- Support for iPad Retina display

Keywords: Vogue, Fashion, Women, Lifestyle, Entertainment, Culture, Beauty, Health, Magazine, Photo, Model, Art

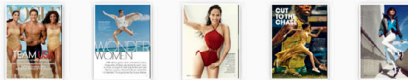
Support Email Address: [amcdonald@condenast.com](mailto:amcdonald@condenast.com)

Support URL: [https://w1.buysub.com/servlet/CSGateway?cds\\_mag\\_code=VOG&cds\\_page\\_id=95518](https://w1.buysub.com/servlet/CSGateway?cds_mag_code=VOG&cds_page_id=95518)

Marketing URL (Optional): <http://www.vogue.com/contact/>

Privacy Policy URL: <http://www.condenast.com/services/privacy/>

iPad Screenshots



Newsstand **Enabled for This Version**

Default Cover Art **EDIT**



EULA **EDIT**

You have provided your own End User License Agreement (EULA). It must meet these [minimum terms](#). To edit your EULA or the territories in which it applies, click Edit.

App Summary

– Support for iPad Retina display

Keywords: Vogue, Fashion, Women, Lifestyle, Entertainment, Culture, Beauty, Health, Magazine, Photo, Model, Art,

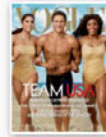
Support Email Address [amcdonald@condenast.com](mailto:amcdonald@condenast.com)

Support URL [https://w1.buysub.com/servlet/CSGateway?cds\\_mag\\_code=VOG&cds\\_page\\_id=95518](https://w1.buysub.com/servlet/CSGateway?cds_mag_code=VOG&cds_page_id=95518)

Marketing URL (Optional) <http://www.vogue.com/contact/>

Privacy Policy URL <http://www.condenast.com/services/privacy/>

#### iPad Screenshots



#### Newsstand Enabled for This Version

Default Cover Art Edit



#### EULA Edit

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[App Summary](#)

Additional Requirements  
- Support for iPad Retina display

Keywords **Vogue, Fashion, Women, Lifestyle, Entertainment, Culture, Beauty, Health, Magazine, Photo, Model, Art,**

Support Email Address **amcdonald@condenast.com**

Support URL **https://w1.buysub.com/servlet/CSGateway?cds\_mag\_code=VOG&cds\_page\_id=95518**

Marketing URL (Optional) **http://www.vogue.com/contact/**

Privacy Policy URL **http://www.condenast.com/services/privacy/**

#### iPad Screenshots



#### Default Cover Art

Version



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App Summary

# HOUSE & GARDEN®





THE BEST IN INTERNATIONAL DESIGN AND DECORATION

# HOUSE & GARDEN

JULY  
2012  
£5.99

PLUS  
THE LEADING  
INTERIOR  
DESIGNERS  
Part 2  
See page 100

*Our*  
**JUBILEE**  
*celebration*

**HOW TO**  
*make an entrance*  
*of your hallway*

Food to suit the occasion + Stylish memorabilia + Exclusive glimpse of private rooms in Buckingham Palace

**DECORATING FOR SUMMER**  
Fresh fabrics + pretty bedlinens in florals, toile and ticking



GENTLEMEN'S QUARTERS



GENTLEMEN'S QUARTERLY | JUNE 2012 | MICHAEL FASSBENDER

**GQ**

LOOK SHARP • LIVE SMART

**AMP UP  
YOUR SEX  
APPEAL**  
LEARN FROM  
THIS GUY  
**\*MICHAEL  
FASSBENDER**

> **HOW TO  
PICK UP WOMEN**  
(The Right Way)

> **HOW TO  
BUY AN  
ENGAGEMENT  
RING**

> **BED-SHAKING  
ADVICE  
FROM A REAL  
LIFE SEX  
COACH**

**+**  
Exclusive  
**THE SECOND  
COMING OF  
D'ANGELO**

**WE TEST  
JUSTIN  
BIEBER'S  
MANHOOD**

**THE  
\$300  
SUIT THAT  
LOOKS LIKE  
YOU SPENT  
\$3,000**

**\*THE  
GREAT  
TALIBAN  
JAILBREAK**  
THE INSIDE  
STORY OF  
HOW 500  
PRISONERS  
TUNNELED  
OUT

**BAD GUYS  
KILLER  
LOOKS FROM  
HOLLYWOOD'S  
WICKEDEST  
VILLAINS**

TAP FOR TABLE  
OF CONTENTS

**Newsstand**



## Vogue - Manage Newsstand

### Newsstand Status


Newsstand is enabled for this app.

### Issues

The issue-related information that you enter here will only be displayed on the App Store. Note that the published date should correspond to when the issue will be available within the app itself.

[Add Issue](#)

[Previous Issues](#)

Cover Art	Published Date	End Date	Issue ID	Last Modified	Modified By	
	15 May 2012	<a href="#">Active</a> None		15 May 2012		<a href="#">Delete</a>

### Atom Feed

To automatically update issues for the App Store, add an Atom feed. For more information, refer to the [Newsstand Atom Feed Specification](#).

[Add Atom Feed](#)

[Done](#)

## New Issue

Published Date **15 May 2012**

End Date (Optional)



Issue ID



Summary \*In anticipation of the London games, Robert Sullivan profiles America's Olympic hopefuls as they set their sights on the gold \* One hundred degrees in the shade, and the temperature spikes further still with Jennifer Lopez in summer's scorching swimsuits \* Model Joan Smalls trails the world's fastest sprinter, Usain Bolt, as a documentary crew tracks his every stride \* Britain's First Couple... David and



Issue Cover Art



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Published Date **15 May 2012**

End Date (Optional)

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Issue Cover Art



## New Issue

Published Date **15 May 2012**

End Date (Optional)



Issue ID



Summary



Issue Cover Art



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Cover Art	Published Date	▲	End Date	Issue ID	▶	Last Modified	Modified By	▶
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[Add Atom Feed](#)

[Done](#)



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Cover Art	Published Date	▲	End Date	Issue ID	▶	Last Modified	Modified By	▶
	15 May 2012	<a href="#">ACTIVE</a>	None			15 May 2012		
								<a href="#">Delete</a>

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**Automation**

# The Atom Feed

## Issue Management Automation

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User Name (Optional)  ?

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# The Atom Feed

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Issue Cover Art



## New Issue

Published Date **15 May 2012**

End Date (Optional)



Issue ID



Summary



Issue Cover Art





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Issue Cover Art



# Issue Timeline

Prepare ahead of time



# Issue Timeline

Prepare ahead of time



March 1

# Issue Timeline

Prepare ahead of time



March 1



April 1

# Issue Timeline

Prepare ahead of time



March 1



April 1



May 1

# Issue Timeline

Prepare ahead of time



March 1



April 1



May 1



June 1



**Submission**



**Once in Newsstand,  
Always in Newsstand**

# App Store Impact

# Categories

Your coverage on the App Store



# Categories

## Your coverage on the App Store

- Primary Category → Your Choice



# Categories

## Your coverage on the App Store

- Primary Category → Your Choice
- Secondary Category → Newsstand



# Categories

## Your coverage on the App Store

- Primary Category → Your Choice
- Secondary Category → Newsstand
- Newsstand subcategories





# Categories

## Your coverage on the App Store

- Primary Category → Your Choice
- Secondary Category → Newsstand
- Newsstand subcategories



## New Issue

Published Date **15 May 2012**

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Issue ID



Summary



Issue Cover Art



Choose File

Cancel

Save

[App Store](#) > [Entertainment](#) > [Condé Nast Digital](#)



Free App

Category: Entertainment  
Updated: Mar 16, 2012  
Version: 3.6  
Size: 4.4 MB  
Language: English  
Seller: CondeNet  
© 2011 Condé Nast

## Vogue

### What's New In This Issue Latest Issue May 15, 2012

\* In anticipation of the London games, Robert Sullivan profiles America's Olympic hopefuls as they set their sights on the gold \* One hundred degrees in the shade, and the temperature spikes further still with Jennifer Lopez in summer's scorching swimsuits \* Model Joan Smalls trails the world's fastest sprinter, Usain Bolt, as a documentary crew tracks his every stride \* Britain's First Couple, David and Samantha Cameron,...

[...More](#)

### Description

Every image, every word—download this month's issue of Vogue for the iPad for digital access to the ultimate fashion experience.

Long synonymous with sophistication and glamour, Vogue is unparalleled in its influence on fashion, but its reach extends well beyond matt...

[...More](#)

[Condé Nast Digital Web Site](#) > [Vogue Support](#) > [Application License Agreement](#) >

### What's New in Version 3.6

- Full issues of Vogue now available for the iPad.
- Auto-Renewing Subscriptions
- Support for iPad Retina display

# Subscriptions and Newsstand

# Subscriptions and Newsstand



Regular  
Subscriptions

Newsstand  
Subscription

---

# Subscriptions and Newsstand



Regular  
Subscriptions

Newsstand  
Subscription

---

Background  
Downloading

---

# Subscriptions and Newsstand



Regular  
Subscriptions

Newsstand  
Subscription

---

Background  
Downloading

---

Atom Feed

---

# Subscriptions and Newsstand



Regular  
Subscriptions

Newsstand  
Subscription

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Background  
Downloading

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Atom Feed

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Individual Issue  
Metadata

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# Subscriptions and Newsstand



Regular  
Subscriptions

Newsstand  
Subscription

---

Background  
Downloading

---

Atom Feed

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Individual Issue  
Metadata

---

Custom Cover Art

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# Subscriptions and Newsstand



Regular  
Subscriptions

Newsstand  
Subscription

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Background  
Downloading



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Atom Feed

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Individual Issue  
Metadata

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Custom Cover Art

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# Subscriptions and Newsstand



Regular  
Subscriptions

Newsstand  
Subscription

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Background  
Downloading



---

Atom Feed



---

Individual Issue  
Metadata

---

Custom Cover Art

---

# Subscriptions and Newsstand



Regular  
Subscriptions

Newsstand  
Subscription

Background  
Downloading



Atom Feed



Individual Issue  
Metadata



Custom Cover Art

# Subscriptions and Newsstand



Regular  
Subscriptions

Newsstand  
Subscription

Background  
Downloading



Atom Feed



Individual Issue  
Metadata



Custom Cover Art



**Better Together**

# Best Practices

- Automate using Atom Feed
- Once in Newsstand, always in Newsstand
- Double your App Store coverage

# NewsstandKit Best Practices

**Ben Nielsen**

iOS Application Engineering



# NewsstandKit Best Practices

# NewsstandKit Best Practices

- Receiving push notifications

# NewsstandKit Best Practices

- Receiving push notifications
- Downloading in the background

# NewsstandKit Best Practices

- Receiving push notifications
- Downloading in the background
- Managing your content on device

# Push Notifications

Throttling

# Push Notifications

## Throttling

- Battery performance is critical

# Push Notifications

## Throttling

- Battery performance is critical
  - 1×/day—**not changing**

# Push Notifications

## Throttling

- Battery performance is critical
  - 1×/day—**not changing**
- More flexibility



# Push Notifications

## Throttling

- Battery performance is critical
  - 1×/day—**not changing**
- More flexibility
  - Publishing deadlines change from day to day

# Push Notifications

## Throttling

- Battery performance is critical
  - 1×/day—**not changing**
- More flexibility
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# Push Notifications

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# Push Notifications

## Throttling window

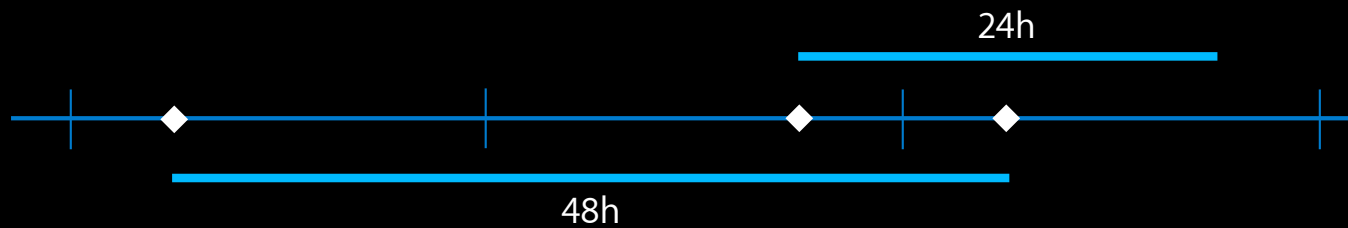
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# Push Notifications

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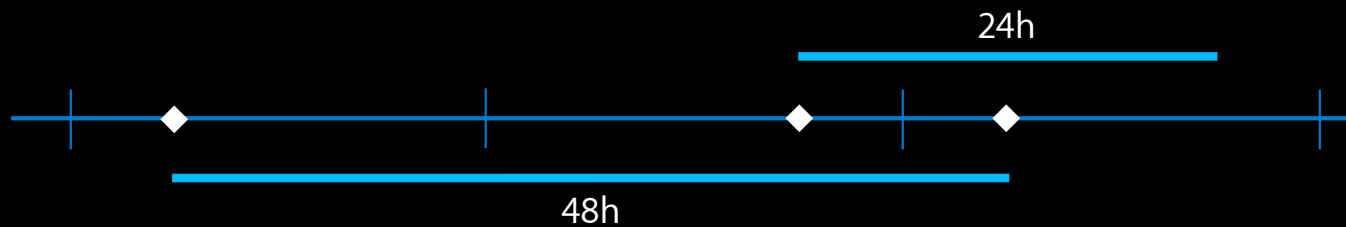


# Push Notifications

## Throttling window



- Strict ~24 hour window
  - Holding the presses one day means throttling the next



# Push Notifications

Throttling window



# Push Notifications

## Throttling window

- Provides at least eight hours of flexibility



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- Provides at least eight hours of flexibility
  - four hours to either side of your “regular” publishing time

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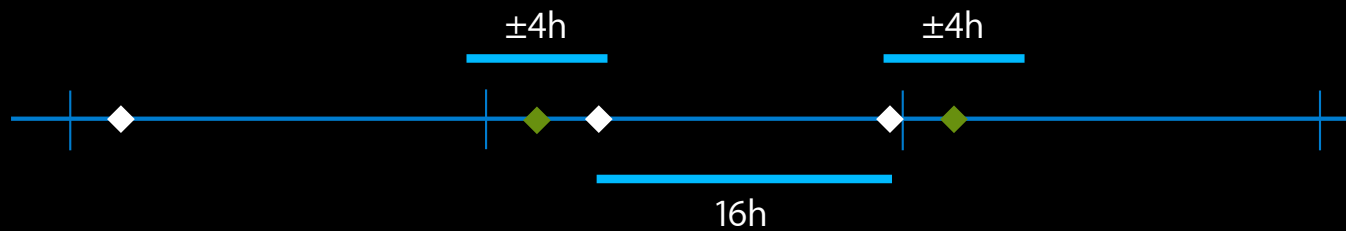


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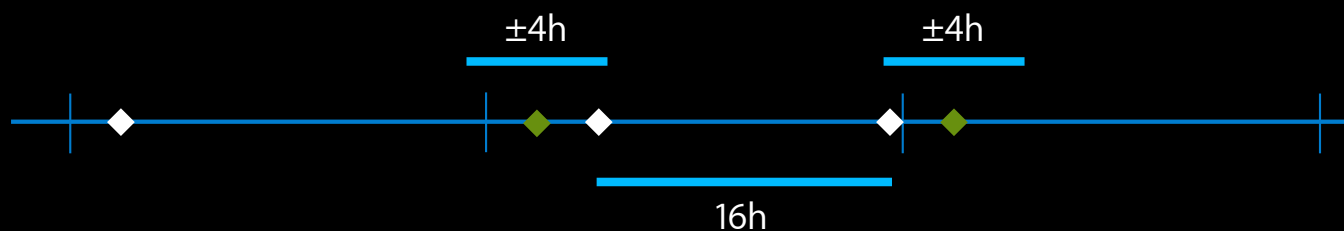




# Push Notifications

## Throttling window

- Provides at least eight hours of flexibility
  - four hours to either side of your “regular” publishing time
- Still averages 1x/day



# Push Notifications

Throttling window triggers



# Push Notifications

## Throttling window triggers

- Triggered from receive time on device



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## Throttling window triggers

- Triggered from receive time on device
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## Throttling window triggers



- Triggered from receive time on device
  - What happens when it's turned off or out of range?
    - Throttled the **next** day
  - The throttling window varies wildly on different devices
    - Debugging is difficult



# Push Notifications

Throttling window triggers



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## Throttling window triggers

- Triggered from receive time of APNs



# Push Notifications

## Throttling window triggers

- Triggered from receive time of APNs
  - Consistent across all devices





# Push Notifications

## Throttling window triggers



- Triggered from receive time of APNs
  - Consistent across all devices
  - Intermittent connectivity is no longer an issue

# Push Notifications

## Pitfalls and best practices

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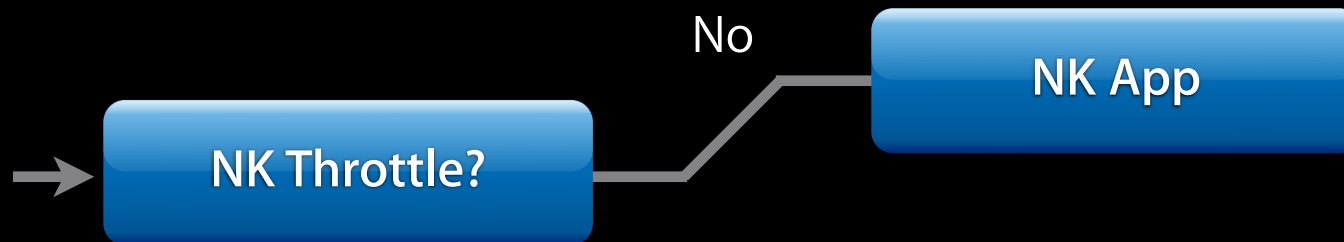
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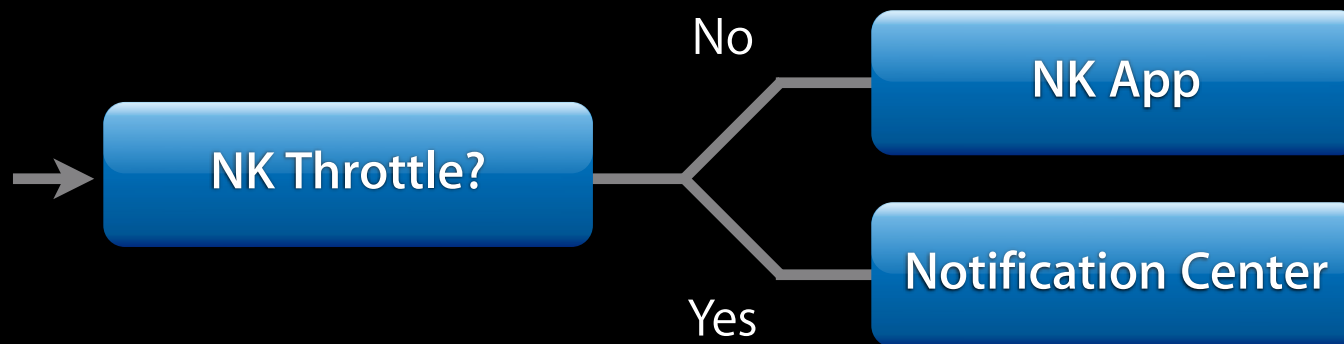
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# Push Notifications

## Pitfalls and best practices

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  - Send a combined notification (content-available + alert)
  - Falls back to alert if content push is disallowed





# Push Notifications

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    - `UIBackgroundModes: newsstand-content`
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## Pitfalls and best practices

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## Pitfalls and best practices

- Adopt Newsstand completely
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    - `UIBackgroundModes: newsstand-content`
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  - Background downloads are only helpful if you can start them
    - Users can turn them off



# Push Notifications

## Pitfalls and best practices

- Adopt Newsstand completely
  - Support multi-tasking
    - `UIBackgroundModes: newsstand-content`
  - Register your app for Newsstand content notifications
    - `UIRemoteNotificationTypeNewsstandContentAvailability`
  - Background downloads are only helpful if you can start them
    - Users can turn them off
    - Off automatically if you don't register for it

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- Debugging

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## Pitfalls and best practices

- Debugging
  - Send a unique identifier in the payload

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`@"NKDontThrottleNewsstandContentNotifications"`

# Background Downloads

Do it



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  - `[NKAssetDownload downloadWithDelegate:]`
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- Can use `NKAssetDownload` even when background downloading is turned off!
  - Caveat: Don't forget to register for the push type

# Background Downloads

Best practices

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## Best practices

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## Best practices

- Make your content easy to deliver
  - More outbound connections = more room for error and delay
  - Intermittent nature of mobile connections can compound this
- Keep the file count low
  - Archive your content for delivery

# Managing Content

Newsstand repository

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  - By downloading them with NewsstandKit APIs
  - By moving them after download

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  - Can significantly **increase** the time to backup
  - Can significantly **decrease** battery life
- Follow iOS Data Storage Guidelines
  - <https://developer.apple.com/icloud/documentation/data-storage>

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Disk space

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  - The `currentlyReadingIssue` property
  - The `date` parameter in `addIssueWithName:date:`

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- Bandwidth and cloud storage are not free
- The user can see your app's usage in Settings
  - Don't force users to manage you manually
    - They might just delete your app
- Always allow users to access items they've purchased
  - Redownload issues if necessary

# Summary

- Don't stomp your push notifications
- Use `NKAssetDownload`
- Package things up for more efficient transfer
- Keep your files in the repository

# More Information

## Paul Marcos

App Services Evangelist  
[pmarcos@apple.com](mailto:pmarcos@apple.com)

## Documentation

Newsstand for Developers  
<https://developer.apple.com/devcenter/ios/newsstand>

Newsstand Atom Feed

<https://itunesconnect.apple.com/docs/NewsstandAtomFeedSpecification.pdf>

## iOS Data Storage Guidelines

<https://developer.apple.com/icloud/documentation/data-storage>

## Apple Developer Forums

<http://devforums.apple.com>

# Related Sessions

Accessibility for iOS

Russian Hill  
Wednesday 9:00AM

Selling Products with Store Kit

Presidio  
Wednesday 2:00PM

What's New in iTunes Connect for App Developers

Nob Hill  
Thursday 9:00AM

Managing Subscriptions with In-App Purchase

Mission  
Thursday 3:15PM



# Labs

In-App Purchase Lab

App Services Lab B  
Thursday 4:30PM

Newsstand Lab

App Services Lab A  
Friday 9:00AM

App Store Lab

App Store Lab (Level 3)  
Ongoing

 **WWDC2012**